

Surgical Interventions for Lymphedema: Approaches Beyond Complete Decongestive Therapy

Introduction

Lymphedema is a chronic condition characterized by the accumulation of lymphatic fluid in the interstitial tissue, causing swelling, most commonly in the arms or legs. It can result from congenital factors (primary lymphedema), surgery, radiation therapy, or infection (secondary

lymphedema). Managing lymphedema is crucial for alleviating discomfort, preventing complications, and improving quality of life. Complete Decongestive Therapy (CDT) is the cornerstone of conservative treatment for lymphedema; however, when traditional measures are insufficient or impractical, surgical options may be considered. This article explores the different types of surgeries available for lymphedema, emphasizing the importance of CDT and the ongoing need for specialized lymphedema therapy post-surgery.

Complete Decongestive Therapy: The Gold Standard

Before discussing surgical interventions, it is essential to highlight the role of CDT, a two-phase program that remains the gold standard of lymphedema treatment. CDT includes manual lymphatic drainage (MLD), compression therapy, exercise, and skincare. The initial phase aims to reduce swelling as much as possible, while the second phase focuses on maintaining and improving those results.

The success of CDT lies in its multifaceted approach, which addresses the various components of lymphedema. Individuals with lymphedema should undergo a thorough trial of CDT before considering surgery since surgery is not a cure for lymphedema but rather a management tool that may reduce symptoms. Moreover, even after surgery, patients often require ongoing CDT to manage the condition effectively.

Surgical Options for Lymphedema

1. Lymphatic Bypass Procedures

These microsurgeries involve redirecting lymphatic flow around blocked areas into the venous system. The most common of these procedures is lymphovenous anastomosis (LVA), which connects lymphatic vessels directly to small veins, allowing the lymph fluid to drain into the venous system.

2. Vascularized Lymph Node Transfer (VLNT)

VLNT involves transplanting healthy lymph nodes from one body part to the affected area. This procedure potentially creates new pathways for lymphatic drainage. The transferred lymph nodes also release growth factors that may promote the healing of lymphatic vessels.

3. Liposuction for Lymphedema

In cases where lymphedema has led to excess fat and fibrotic tissue accumulation, liposuction can be used to remove this tissue and reduce limb volume. However, this method does not

address the underlying lymphatic dysfunction and must be complemented with compression garments postoperatively.

4. Excisional Procedures

In advanced lymphedema, characterized by significant fibrosis and skin changes, excisional procedures such as the Charles procedure may be used. These surgeries remove the affected skin and subcutaneous tissues, followed by skin grafting. Such procedures are generally considered last-resort options due to their extensive nature and potential for significant scarring.

Post-Surgical Considerations and the Role of the Certified Lymphedema Therapist

After undergoing lymphedema surgery, the role of the certified lymphedema therapist becomes pivotal in long-term management. These specialists are trained to assist patients in postoperative care, typically including continued CDT, custom-fitted compression garments, and meticulous skin care. The therapist also guides patients through specialized exercises to enhance lymphatic function and prevent complications.

Conclusion

Surgical interventions for lymphedema are varied and can significantly improve symptoms and quality of life when CDT alone is insufficient. Nevertheless, surgery is not a stand-alone cure and should be pursued with realistic expectations. A multidisciplinary approach, including a certified lymphedema therapist's expertise, remains essential after surgery to manage this chronic condition effectively. Individuals considering surgical options should consult with a team of specialists to discuss the potential risks and benefits, as well as the long-term management plan. With proper treatment and ongoing care, people with lymphedema can look forward to better management of their symptoms and an improved daily life experience.



Taking the ACOLS Complete Lymphedema Certification Course

The Complete Lymphedema Certification Course is an intensive 135-hour certification training for medical professionals to successfully treat and manage lymphedema affecting different parts of the body, as well as other related conditions.

Each course participant will be trained in the four components of Complete Decongestive Therapy (CDT) and the management of lymphedema affecting a variety of peripheral body parts - upper and lower extremities, head and neck, exterior genitalia, truncal swelling, pediatric lymphedema, post-surgical and post-traumatic swelling, lymphedema caused by chronic venous insufficiencies and other pathologies, lipedema and more. Upon completion of this course participants will be able to differentiate between a variety of peripheral edemas and understand the medical indications and contraindications of CDT. Furthermore the therapist will be able to establish a treatment plan for individuals with chronic extremity lymphedema and other conditions and perform the treatment accordingly. Class topics include the following:

- Anatomy, physiology and pathology of the lymphatic system
- Basic and advanced techniques of MLD and CDT
- Treatment of primary and secondary lymphedema as well as related conditions
- Introduction to the treatment of pediatric lymphedema, head/neck and genital lymphedema
- Lymphedema bandaging techniques for upper and lower extremities
- Decongestive exercises for lymphedema patients
- Measuring techniques for edema (volumetric and circumferential)
- Measuring techniques for compression garments
- Home maintenance and self-treatment for lymphedema patients
- Hygienic skin and nail care for lymphedema
- Indications and contraindications for MLD and CDT
- Billing issues for lymphedema therapy

Students will first complete a 45-hour Home Study Program, followed by the 90-hour class for their live lecture and hands-on instruction. The classroom time is taught over 9 consecutive days. It requires only 5 working days and 2 weekends to complete.

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